

Serial No. 09/821,002
Docket No. NEC F-10850
Amendment B

REMARKS

Claim 9 has been cancelled. Claims 1 and 12 have been amended to clarify the invention, claims 10 and 11 have been amended to correct the minor informalities noted by the Examiner. No new matter has been entered by the foregoing amendments.

Claims 1 and 10-12 also have been amended along the lines suggested by the Examiner to obviate the 112 rejection. As for the rejection of independent claim 9 as obvious over Bojer (US Patent 6,029,059), Claim 9 has been cancelled, thereby rendering the Examiner's rejection moot.

Turning to the rejection of claims 1, 3-5 and 12 under 35 USC §103 as obvious over Bojer in view of Laws (US Patent 5,303,417), claim 1 has been amended to specify that the lattice circuit consists of inductors and resistors. Neither Bojer nor Laws teach this feature. As the Examiner states in Cipher 4 of his Action, Bojer fails to disclose that the phase shifters comprise R-elements, and cites Laws as teaching this feature. However, Laws discloses a phase shift circuit comprising L, R and C elements (LRC lattice circuit) (Figure 10B). In a phase circuit employing an LRC lattice circuit, the direct current does not flow from the input terminal to the output terminal. Thus, power consumption is not reduced. The phase shifter of Applicant's invention consists of only inductors and resistors (LR lattice circuit). Phase shifters using the LR lattice circuits enable the DC component of the current signals input into the phase shifter to flow through the inductors, thereby eliminating the voltage drop across the resistors. Thus, in Applicant's invention, power consumption of the image projection mixer is reduced (page 11, lines 11-21). As noted supra, neither Bojer nor Laws teach that the lattice circuit consists of inductors and resistors, and the advantages thereof. Moreover, there is no

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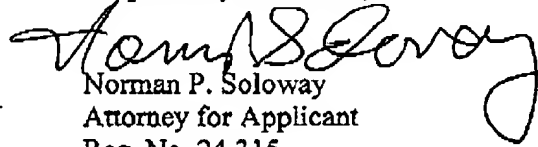
motivation in Laws to apply a lattice circuit consisting of inductors and resistors to the image rejection mixer, and thus no combination of Bojer and Laws can achieve or render obvious Applicant's claims 1, or 12, or claims 3-5 that depend on claim 1.

Turning now to the rejection of claims 6-8 under 35 USC §103 as obvious over Bojer in view of Laws in further view of Staudinger (US Patent 5,339,462), these claims depend either directly or indirectly from claim 1 discussed above. The deficiencies of the combination of Bojer and Laws have been adequately discussed vis-à-vis claim 1. Staudinger does not supply the missing teachings to achieve or render obvious claim 1 or claims 6, 7 and 8 which depend thereon. Therefore no combination of Bojer, Laws and Staudinger can achieve or render obvious Applicant's claims 6-8.

The foregoing amendment makes no claim changes that would require further search by the Examiner. Thus, entry of the foregoing amendment and allowance of the application are respectfully requested.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account Number 08-1391.

Respectfully submitted,


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I hereby certify that this correspondence is being sent via facsimile to EXAMINER DUC M. NGUYEN of the United States Patent and Trademark Office at facsimile number (703) 872-9306, on February 28, 2005, from Tucson, Arizona.

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